

WHAT IS CLAIMED IS:

1. A radio communication system in which the same information is transmitted from a radio station to a plurality of mobile stations with a predetermined down link transmission power, wherein the radio station comprises:

a transmission power controller configured to control the predetermined down link transmission power based on control information transmitted by a part of the mobile stations subordinated to the radio station.

2. A radio communication system in which the same information is transmitted from a radio station to a plurality of mobile stations with a predetermined down link transmission power, wherein

the radio station comprises:

a transmission power controller configured to control the predetermined down link transmission power based on control information transmitted by the mobile stations, and

the mobile station comprises:

a decision unit configured to decide whether to transmit the control information to the radio station; and

a transmitter configured to transmit the control information to the radio station based on a result of the decision made by the decision unit, the control information being generated according to reception quality of the same information transmitted by the radio station.

3. A radio communication system in which the same information is transmitted from a radio station to a plurality of mobile stations with a predetermined down link transmission power, wherein

the radio station comprises:

a threshold setting unit configured to set a threshold for reception quality;

a transmitter configured to transmit the threshold for the reception quality set by the threshold setting unit and the same information to the mobile stations; and

a transmission power controller configured to control the predetermined down link transmission power based on control information transmitted by the mobile stations, and

the mobile station comprises:

a reception quality calculator configured to calculate the reception quality of the same information transmitted by the radio station;

a decision unit configured to decide whether to transmit the control information to the radio station by comparing the reception quality calculated by the reception quality calculator with the threshold for the reception quality transmitted by the radio station; and

a transmitter configured to transmit the control information to the radio station based on a result of the decision made by the decision unit.

4. A radio communication system in which the same

information is transmitted from a radio station to a plurality of mobile stations with a predetermined down link transmission power, wherein

the radio station comprises:

a mobile station selector configured to select a mobile station to which a transmission request for control information is transmitted;

a transmission request transmitter configured to transmit the transmission request to the mobile station selected by the mobile station selector; and

a transmission power controller configured to control the predetermined down link transmission power based on the control information transmitted by the mobile station that has been selected by the mobile station selector, and

the mobile station comprises:

a transmitter configured to transmit the control information to the radio station based on the transmission request transmitted by the radio station.

5. A transmission power control method for controlling a predetermined down link transmission power when transmitting the same information from a radio station to a plurality of mobile stations with the predetermined down link transmission power, the method comprising the steps of:

deciding whether to transmit control information from the mobile station to the radio station;

transmitting the control information from the mobile

station to the radio station based on a result of the decision,
the control information generated according to reception quality
of the same information transmitted from the radio station; and
controlling the predetermined down link transmission
power in the radio station based on the control information
transmitted from the mobile stations.

6. A transmission power control method for controlling
a predetermined down link transmission power when transmitting
the same information from a radio station to a plurality of mobile
stations with the predetermined down link transmission power,
the method comprising the steps of:

setting a threshold for reception quality in the radio
station;

transmitting the set threshold for the reception quality
and the same information from the radio station to the mobile
stations;

calculating the reception quality of the same information
transmitted from the radio station in the mobile station;

deciding whether to transmit control information to the
radio station in the mobile station by comparing the calculated
reception quality of the same information with the threshold
for the reception quality transmitted from the radio station;

transmitting the control information from the mobile
station to the radio station based on a result of the decision;
and

controlling the predetermined down link transmission

power in the radio station based on the control information transmitted from the mobile stations.

7. A transmission power control method for controlling a predetermined down link transmission power when transmitting the same information from a radio station to a plurality of mobile stations with the predetermined down link transmission power, the method comprising the steps of:

selecting a mobile station to which a control information transmission request is transmitted in the radio station;

transmitting the transmission request from the radio station to the selected mobile station;

transmitting the control information from the mobile station to the radio station based on the transmission request transmitted from the radio station; and

controlling the predetermined down link transmission power in the radio station based on the control information transmitted from the mobile station.

8. A mobile station for receiving the same information transmitted from a radio station with a predetermined down link transmission power, the mobile station comprising:

a decision unit configured to decide whether to transmit control information to the radio station;

a reception quality calculator configured to calculate reception quality of the same information transmitted by the radio station, based on a result of the decision made by the

decision unit; and

a transmitter configured to transmit the control information generated based on the reception quality calculated by the reception quality calculator to the radio station.

9. A mobile station for receiving the same information transmitted from a radio station with a predetermined down link transmission power, the mobile station comprising:

a reception quality calculator configured to calculate reception quality of the same information transmitted by the radio station;

a decision unit configured to decide whether to transmit the control information to the radio station by comparing the reception quality calculated by the reception quality calculator with a threshold for the reception quality transmitted by the radio station; and

a transmitter configured to transmit the control information to the radio station based on a result of the decision made by the decision unit.

10. A radio station for transmitting the same information to a plurality of mobile stations with a predetermined down link transmission power, the radio station comprising:

a mobile station selector configured to select a mobile station to which a transmission request for control information is transmitted; and

a transmission power controller configured to control the

predetermined down link transmission power based on the control information transmitted by the mobile station that has been selected by the mobile station selector.